

### Abstract

The invention provides a steel wheel-type linear motor in which a protective cover 11 having insulating properties and coming in direct contact with a stator coil 9 is located on the ground side of the stator coil 9 protruding from a stator core 7; a vent hole 11a is formed in the protective cover 11 to be opposite to a gap formed between ends of the stator coil 9 protruding from the stator core 7; and a bar 10 protrudes from the stator core 7 and thus the protective cover 11 on the stator core 7 side is pressed onto the stator coil 9 to be supported by the bar 10, the protective cover 11 on the side opposite to the stator core 7 is fixed to the stator coil 9 by a fastener member 12 having insulating properties that goes through the vent holes 11a, and the stator coil 9 and the protective cover 11 are formed to be of integral structure using an insulating varnish.